

VOLGSKAYA, A. Y.

PHASE I BOOK EXPLOITATION

SOV/4585

Vsesoyuznoye soveshchaniye po osnovnym problemam teorii mashin i mekhanizmov.
2d, Moscow, 1958

Teoriya mashin avtomaticheskogo deystviya i teoriya tochnosti v mashinostroyeni
i priborostroyeni; sbornik statey (The Theory of Automatic Machines and the
Theory of Precision in the Manufacture of Machinery and Instruments; Collection of
Articles) Moscow, Mashgiz, 1960. 218 p. (Series: Its: Trudy [tom 3]) Errata
slip inserted. 3,000 copies printed.

Sponsoring Agency: Institut mashinovedeniya Akademii nauk SSSR.

Editorial Board: I.I. Artobolevskiy, Academician, (Resp. Ed.), S.I. Artobolevskiy,
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on General Technical and Transport Machine Building (Mashgiz): A.P. Kozlov,
Engineer.

Card 1/5

Construction of Automatic Machines and the
the Development of the General ("Interbranch") Theory of These Machines

7

Card 2/5

The Theory of Automatic Machines (Cont.)

SOV/4585

2. Bykhovskiy, M.L., and A. Ye. Kobrinskiy [Doctors of Technical Sciences].
On the Dynamics of Stepwise Systems of Programmed Control 19
3. Vologhchenko, A.P. Equations for the Relationship Between the Manu-
facturing Parameters and the Kinematic Parameters of Semiautomatic
Machine Tools for Continuous Operation 36
4. Kamyshnyy, N.I., M.V. Medvid', and V.F. Preys [Candidates of
Technical Sciences]. Problems in the Theory of Automatic Loading
of Machine Tools and Presses by Piecework Intermediate Products 42
5. Klebanov, M.K. Kinematic and Dynamic Investigations of Mechanisms
for Feeding Rods to Automatic Machines 72
6. Klusov, I.A. Investigation of the Incompatibility of the Cycle
Diagrams of a Six-Position Automatically Controlled Sorter 80
7. Krupin, G.V. [Candidate of Technical Sciences]. Some Problems in
the Productive Capacity of Machines 88
8. Trenkner, G. [Doctor, Professor (Dresden)]. Theory and Investiga-
tions of Automatically Operating Machines 94
9. Shekhvits, E.I. [Candidate of Technical Sciences]. Systems for
Controlling and Driving Mechanisms With Periodic Adjustments in
Automatic Machines 104

Card 3/5

The Theory of Automatic Machines (Cont.)

80V/4585

THEORY OF PRECISION IN THE MANUFACTURE OF MACHINERY AND INSTRUMENTS

10. Bykhovskiy, M.L. [Doctor of Technical Sciences]. Present State of the Problem of Precision in Electric Circuits 125
11. Gladilin, A.G. [Engineer]. Calculation of Tolerances for a Given Precision of a Device 135
12. Golinkevich, T.A. [Candidate of Technical Sciences]. Some Problems in Calculating the Precision of Complex Computing Devices 152
13. Dostupov, B.G. [Doctor of Technical Sciences]. On Estimating the Accuracy of Analog Computers Designed for the Solution of Ordinary Differential Equations 158
14. Ivantsov, A.I. [Candidate of Technical Sciences]. Problems of Measuring Technique in Machine Manufacture Which Can be Solved on the Basis of the Theory of Precision of Mechanisms 169
15. Mikhaylov, Ye. A. [Engineer]. On Increasing the Accuracy of Mechanisms by the Method of Adjustment 183
16. Livshits, G.A. [Candidate of Technical Sciences]. Defects in Turbine Reduction Gears as Exciters of Vibration and Noise in Turbogear Assemblies 197

Card 4/5

VOLOSHCHENKO, A.P.

Determining the limit value of lot production in machining on
automatic and semiautomatic machine tools. Nauch.zap.Od.politekh.
inst. 26:23-30 '60. (MIRA 15:5)
(Metal cutting)

VOLOSHCHENKO, A.P.

Determining the limit value of lot production in machining on
automatic and semiautomatic machine tools. Nauch.zap.Od.politekh.
inst. 26:23-30 '60. (MIRA 15:5)

(Metal cutting)

VOLOSHCHENKO, A.P.; OZERNYUK, T.S.

Methods of simplified calculations of technically substantiated
time norms in small-lot production. Nauch.zap.Od.politekh.inst.
26:17-22 '60. (MIRA 15:5)
(Factory management—Production standards)

VOLOSHCHENKO, A. P.

A. P. Voloshchenko, "Reference Equations for the Machine and Kinematic Characteristics of Continuously Operating Semi-Automatic Lathes."

paper presented at the 2nd All-Union Conf. on Fundamental Problems in the Theory of Machines and Mechanisms, Moscow, USSR, 24-28 March 1958.

VOLOSHCHENKO, A.P.

VOLOSHCHENKO, A.P. "Analysis and Evaluation of Processes of Mechanical Working Using Generalized Characteristics." Min Higher Education Ukrainian SSR. Odessa Polytechnic Inst. Odessa, 1956. (Dissertation for the Degree of Candidate in Technical Science)

So: Knizhnaya Letopis', No. 18, 1956,

DITMAN, Irina Alekseyevna; YOLOSHCHENKO, Diana Kuz'minichna; MEDVEDER,
Lyudmila Dmitriyevna; STOLETNYAYA, Anna Markianovna;
TERPIGOREVA, V.D., retsenzent; BELOCHKIN, A.G., otv. red.;
PARTSEVSKIY, V.N., red.izd-va; NURMUKHAMEDOVA, V.F., red.
izd-va; PROZOROVSKAYA, V.L., tekhn. red.

Ore mining. Moskva, Gosgortekhnizdat, 1963. 162 p. [Text in
English with vocabulary] (MIRA 17:2)

VOLOSHCHENKO, D. L.

32785. VOLOSHCHENKO, D. L. i SHINKARENKO, A. M. Kveprosu orake obdlechyek mizga. Trudy Kievsk. Nauch.-issled. Penkhonevrol. in-ta, T. XII, 1949, s. 81-84, 212

80: Letopis' Zhurnal'nykh Statey, Vol. 44, Moskva, 1949

OSTAPENKO, B.F., kand. sel'skokhoz. nauk; VOLOSHANENKO, F.G., agronom-
lesomeliorator

Ten-year-old oak shelterbelts planted in clusters. Agrobiologiya
no.4:613-618 JI-Ag '59. (MIRA 12:10)

1. Khar'kovskiy sel'skokhozyaystvennyy institut.
(Windbreaks, shelterbelts, etc.)
(Oak)

86-58-4-10/27

AUTHOR: Voloshenko, G. F., Major Gen of the Air Force, and Shapiro, A. Sh.,
Engr-Col

TITLE: Attacking a Target from Below by the Zoom Method (Ataka tseli snizu
metodom gorki)

PERIODICAL: Vestnik vozdushnogo flota, 1958, Nr 4, pp 33-34 (USSR)

ABSTRACT: The author states that at altitudes close to service ceiling a better use of combat capabilities of a fighter airplane can be made, if the attack against an aerial target is carried out from below by zooming at it. At altitudes close to service ceiling, the piloting of a aircraft is complicated and the maneuverability is limited. The last 1000 meters of altitude is gained with difficulty. On the other hand, at altitudes 1000 - 1500 m. lower than the service ceiling, the maneuverability of a fighter plane is much better. For that reason the author suggests that the aerial targets, which fly at altitudes close to service ceiling of a fighter plane, should be approached at an altitude 1500 - 2000 m. lower than the service ceiling and then attacked by zooming at them from below. According to the author, this method of attack was often practiced in his unit and the last 1000 - 1500 m. of altitude were gained 5 - 6 times faster than by the conventional method.

AVAILABLE: Library of Congress
Card 1/1 1. Aerial warfare - USSR 2. Aerial targets - Interception

VOLOSHCHENKO, I. A., Cand Chem Sci -- (diss) "Polarographic determination of acetic acid in grape liquors and wines." Odessa, 1960. 19 pp with graphs; (Ministry of Higher and Secondary Specialist Education Ukrainian SSR, Odessa State Univ im I. I. Mechnikov); 200 copies; price not given; (KL, 27-60, 149)

CHEBOTAREV, D.F.; KORKUSHKO, O.V.; SACHUK, N.N.; VOLOSHCHENKO, I.I.

Some data on atherosclerotic cardiosclerosis in very old persons.
Vop. geron. i geriat. 4:159-166 '65. (MIRA 18:5)

1. Institut gerontologii AMN SSSR, Kiyev.

VOLOSHCHENKO, K.
VOLOSHCHENKO, K.

Work of the Kirovskiy District Veterinary Hospital of Taldy-Kurgan
Province in Kazakh S.S.R. Veterinariia 34 no.11:84-87 N '57.
(MIRA 10:12)

1. Glavnyy veterinarnyy vrach vetotdela Taldy-Kurganskogo
oblsel'khozupravleniya.
(Kirovskiy District (Taldy-Kurgan Privince)--Veterinary hospital)

VOLOSHCHENKO, M.V.; KLIMENKO, V.M.; SHEYKO, A.A.

Making castings of cupola-melted austenitic iron with spheroidal
graphite. Nauch. trudy Inst. lit. proizv. AN URSR 11:55-57 '62.
(MIRA 15:9)

(Cast iron)

BURDYUG, G.K.; VOLOSHCHENKO, M.V.; KLIMENKO, V.M.; SHEYKO, A.A.

Ultrasonic control of crankshafts made of nodular cast iron.

Nauch. trudy Inst. lit. proizv. AN URSR 11:65-69 '62.

(MIRA 15:9)

(Cast iron--Testing) (Ultrasonic testing)

SOV/137-57-6-10073

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 6, p 103 (USSR)

AUTHOR: Voloshchenko, M.V.

TITLE: Techniques for Production of Nodular Cast Iron in Electric Arc Furnaces (Tekhnologiya polucheniya chuguna s globulyarnym grafitom v dugovykh elektropechakh)

PERIODICAL: V sb.: Vysokoprochnyye chuguny, Kiyev. Mashgiz, 1954, pp 136-139

ABSTRACT: A description is offered of the advantages and shortcomings of various methods of introducing Mg to produce nodular cast iron. A method of making an Mg alloy with 5% FeSi is adduced. An experiment in the development of a cast iron alloy melted in an electric arc furnace at the Khar'kov Tractor Plant is described.

Ya.P.

Card 1/1

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860710014-3

VOLOSCHENKO, M.V.

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860710014-3"

SOV/128-58-11-1/24

AUTHORS: Gorshkov, A.A., Toropov, A.I., Voloshchenko, M.7. and Prozhoga, K.K.

TITLE: Magnesium Cast Iron Crankshafts for Diesel Tractor Engines
(Kolenchatyye valy dlya dizel'nykh traktornykh dvigateley iz magniyevogo chuguna)

PERIODICAL: Liteynoye proizvodstvo, 1958, Nr 11, pp 1-3 (USSR)

ABSTRACT: Information is presented on experience in the production of magnesium cast-iron crankshafts at the Khar'kov Tractor Plant and the "Serp i molot" Plant, with the participation of Academician A.A. Vasilenko, engineers L.L. Yurovskiy, T.M. Belov, S.V. Timchenko, B.K. Krymov, I.K. Udovikov, A.P. Mel'nikov, A.G. Sherman, I.G. Neizhko; Candidates of Technical Sciences I.S. Grigor'yev, N.B. Gel'perin and other workers of the "Serp i molot" Plant and the Institut mashinovedeniya (Institute of Mechanical Engineering) AS UkrSSR and NII Traktorosei'mash. Good results were obtained in the experiments and the wear-resisting properties of the cast crankshafts proved to be 30 to 40 % higher than those of forged steel shafts. In developing the casting technology special attention was de-

Card 1/2

SOV/128-58-11-1/24

Magnesium Cast Iron Crankshafts for Diesel Tractor Engines

voted to the double modification process obtained by separate subsequent addition of ferrosilicon in a certain time interval after the addition of magnesium. It was stated that positive results of the double modification process depend on the composition of the initial cast iron. According to technical conditions, the structure of cast crankshafts for diesel engines must consist of laminated perlite with different dispersion, globular graphite and up to 25 % ferrite. It was stated that the ferrosilicon content must be increased up to 0.55 %. The casting was carried out on a special conveyor. After machining, the cast shafts were subjected to tests on gamma flaw-detectors with radioactive cobalt radiation and on magnetic flaw-detectors.

There are 4 photos, 2 diagrams, 1 graph and 3 references, 2 of which are Soviet and 1 English.

1. Crankshafts--Production
2. Iron-magnesium castings--Applications
3. Crankshafts--Mechanical properties
4. Crankshafts--Inspection

Card 2/2

VOLOSHCHENKO, M.V., Cand Tech Sci — (diss) "Study of the
effect of magnesium and manganese ^{upon} on phase conversions in
high-~~resistance~~ ^{strength} pig iron." Stalino, 1959, 15 pp (Min of
Higher Education USSR. Donets Industrial Inst) 150 copies
(KL, 34-59, 113)

VOLOSHCHENKO, M.V.

Effect of manganese on the isothermal decomposition of structurally
free carbides in high strength cast iron with nodular graphite.

Nauk. pratsi Inst. lyv. vyrob. AN URSR 8:71-77 '59.

(MIRA 14:1)

(Cast iron—Metallurgy) (Manganese)

VOLOSHCHENKO, M.V.

Wear resistance of high strength cast iron under the effect of
abrasive friction. Nauk. pratsi Inst. lyv. vyrob. AN URSR
8:156 '59. (MIRA 14:1)

(Cast iron--Testing)

(Mechanical wear)

VOLOSHCHENKO, M.V., kand. tekhn. nauk; DZYKOVICH, I.Ya., kand. tekhn. nauk

Distribution of silicon and magnesium in cast iron. Lit. proizv. no.9:
7-9 S '65. (MIRA 18:10)

VOLOSCHCHENKO, M.V., kand.tekhn.nauk

Wear resistance and fatigue strength of ductile cast iron.
Mashinostroyeniye no.4:61-64 51-52 '61. (MIRA 18:3)

VOLOSHCHENKO, M.V.; RIDNYI, A.A.; LITOVKA, V.I.; ZELENYY, B.G.; MAKEYEVA,
V.P.

Effect of silicon on the mechanical properties of isothermally
hardened magnesium cast iron. Metalloved. i term. obr. met. no.
7:47-48 J1 '64. (MIRA 17:11)

1. Institut liteynogo proizvodstva AN UkrSSR.

GORSHKOV, A.A., doktor tekhn. nauk, prof.; VOLOSHCHENKO, M.V.,
kand. tekhn. nauk. Prinsipal uchastiye YUDIN, Ye.I., inzh.;
STEPIN, P.I., kand. tekhn. nauk, retsenzent

[Cast crankshafts] Litye kolenchatye valy. Moskva, Izd-vo
"Mashinostroenie," 1964. 194 p. (MIRA 17:5)

VOLOSHCHENKO, M.V.; LITOVKA, V.I.

Phosphide eutectifs in magnesium cast iron. Lit. proizv. no.10:
22-25 0 '63. (MIRA 16:12)

VOLOSHCHENKO, M.V.; Primali uchastiye: UDOVIKOV, I.K.; LAGEREVA, Z.I.;
KOTSEGUB, L.V.

Hardenability of ordinary and alloyed high strength cast iron
with spheroidal graphite. Nauch. trudy Inst. lit. proizv. AN
URSR no.10:72-80 '61. (MIRA 15:6)
(Cast iron--Hardening)

VOLOSHCHENKO, M.V.

Effect of inoculating cast iron with magnesium, ferrosilicon,
and cryolite on the total and fixed carbon content in castings.
Nauch. trudy Inst. lit. proizv. AN URSR no.10:28-33 '61.

(MIRA 15:6)
(Cast iron—Metallurgy) (Iron founding)

GORSHKOV, A.A.; VOLOSHCHENKO, M.V.

Results of investigating cast iron treated with naphthalene.

Nauch. trudy Inst. lit. proizv. AN URSR no.10:46-50 '61.

(MIRA 15:6)

(Cast iron—Metallography) (Naphthalene)

VOLOSHCHENKO, Mikhail Vasilyevich; LUPANDIN, I.V., red.; GORKAVENKO,
L.I. [Gorkavenko, L.I.], tekhn. red.

[Heat treatment of high-strength cast iron] Termichna obrobka
vysokomitsnoho chavunu. Kyiv, Derzhstekhvydav URSR, 1961. 97 p.
(MIRA 15:7)

(Cast iron—Heat treatment)

VOLOSHCHENKO, M.V.; TOROPOV, A.I.

Some characteristics of the production of crankshafts from
high strength cast iron for SMD diesels. Nauk.pratsi Inst.lyv.
vyrob.AN URSR 9:73-81 '60. (MIRA 15:3)
(Iron founding) (Crankshafts)

VOLOSHCHENKO, M.V.; DZYBAL, L.I.; KLIMENKO, V.M.; SHEYKO, A.A.;
MALAFIY, G.V.

Production of cast iron crankshafts with spheroidal graphite
for 6Ch 12/14 diesels. Lit. proizv. no.8:41-42 Ig '61.
(MIRA 14:7)
(Iron founding) (Crank and crankshafts)

S/137/62/000/003/125/191
A060/A101

AUTHOR: Voloshchenko, M. V.

TITLE: High-strength cast iron with austenitic structure

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 31, abstract 3I185
(V sb. "Goryachaya obrabotka metallov. Vyp. 2". Kiyev, AN USSR, 1960, 135-137)

TEXT: Experiments were carried out on the production of high-strength cast iron with austenitic structure. Finely ground Fe-Mn mark MH-3 (Mn-3) was added to the molten crude iron at 1,400 - 1,415°C before tapping. After stirring, metallic Mg in the amount of 0.6% of the weight of the molten metal was introduced. It is established that as the Mn and Mg content in the crude iron is increased the stability of the austenite increases, and the temperature of the start of the martensitic transformation is lowered. In order to obtain austenitic structure by normalizing, the chemical composition of the cast iron should be as follows(in %): C_{total} 3.2 - 3.6, Si 1.8 - 2.2, Mn 4.5 - 5.0, Mg ≥ 0.05. Crude iron castings have to be subjected to the first stage of graphitizing. To reduce the duration of the heat-treatment it is necessary to apply two-fold

Card 1/2

High-strength cast iron ...

S/137/62/000/003/125/191
A060/A101

modifying, but the total Si content should not exceed 2.2%. Cast iron with austenitic structure has high strength characteristics: σ_{bu} 80 - 90 kg/mm², σ_p 40 - 50 kg/mm², δ 1.5 - 4 %, $H_B \sim 200$ kg/mm². The abrasion resistance of the cast iron is high.

A. Savel'yeva

[Abstracter's note: Complete translation]

Card 2/2

VOLOSHCHENKO, M. V.

PHASE I BOOK EXPLOITATION

501/5787

Nauchno-tekhnicheskaya konferentsiya po razvitiyu proizvoditel'nykh sil Kiyevskogo ekonomicheskogo rayona

Goryachaya obrabotka metallov; trudy konferentsii. vyp. 2. (Hot Working of Metals; Transactions of the Scientific Technological Conference on the Development of the Productive Forces of the Kiyev Economic Region. no. 2) Kiyev, Izd-vo AN UkrSSR, 1960. 142 p. 1000 copies printed.

Sponsoring Agency: Akademiya nauk Ukrainakoy SSR. Sovet po izucheniyu proizvoditel'nykh sil UkrSSR. Institut lityynogo proizvodstva. Sovet narodnogo khozyaystva Kiyevskogo ekonomicheskogo rayona. Tekhniko-ekonomicheskii sovet.

Editorial Board: Resp. Ed.: A.A. Gorshkov, Corresponding Member, Academy of Sciences UkrSSR, B.B. Taisin, Engineer, and F.A. Novikov, Engineer; Ed. of Publishing House: T.K. Remennik; Tech. Ed.: O.A. Kadashevich.

PURPOSE: This collection of articles is intended for technical personnel in machine plants and planning organizations, scientific workers, and teachers in technical schools of higher education.

Card 1/6

14

Hot Working of Metals (Cont.)

SCN/5729

COVERAGE: The book is devoted to problems of the introduction of advanced technology and processing in founding and pressworking. Problems in powder metallurgy are also analyzed. No personalities are mentioned. References accompany some of the articles. There are 56 references, mostly Soviet.

TABLE OF CONTENTS:

Foreword

3

Gerashkev, A.A. [Corresponding Member of the Academy of Sciences UkrSSR; Institute litseynogo proizvodstva AN UkrSSR - Institute of Founding of the Academy of Sciences UkrSSR]. Principal Trends in Improving Foundry Techniques

5

Zharov, N.T. [Candidate of Technical Sciences; Institut avtomatiki Gosplanna UkrSSR-Automation Institute of the State Planning Committee of the UkrSSR]. The Present State and Outlook for Automation in Founding

15

Card 2/6

Hot Working of Metals (Cont.)

SOV/5789

Tsibrik, A.N. [Candidate of Technical Sciences; Institute of Founding of the Academy of Sciences UkrSSR]. On Certain Factors Contributing to the Production of High-Quality Castings 122

Stetsenko, V.I. [Candidate of Technical Sciences; Institute of Founding of the Academy of Sciences UkrSSR]. Use of Radioisotopes in Metallurgy 128

Voloshchenko, M.V. [Candidate of Technical Sciences; Institute of Founding of the Academy of Sciences UkrSSR]. High-Strength Cast Iron With Austenitic Structure 135

Barbenets, I.V. [Engineer: Zavod "Krasnaya zvezda" --- "Krasnaya zvezda" Plant]. Experience in the Introduction of Economically Efficient Manufacturing Processes in Founding 138

Card 5/6

VOLOSHCHENKO, M.V.; TOROPOV, A.I.

Effect of residual magnesium on the shape of graphite. Lit. proizv.
no. 5:30 My '61. (MIRA 14:5)
(Cast iron--Metallography)

GORSHKOV, Andrey Andreyevich; ZATULOVEKIY, Sergey Semenovich, inzh.; RUDENKO, Nikolay Grigor'yevich, inzh.; VOLOSCHENKO, Mikhail Vasil'yevich, kand. tekhn. nauk; KLIBUS, Vladimir Vasil'yevich, inzh.; LUZAN, Petr Petrovich, kand. tekhn. nauk; KRAMARENKO, Oksana Yur'yevna, kand. tekhn. nauk; KULIKOVSKAYA, Ol'ga Varfolomeyevna, inzh.; FILATOVA, T.A., red.

[Cast iron with spheroidal graphite treated by rare-earth modifiers; problems of theory and practice] Chugun s sharo-vidnym grafitom, obrabotannyi redkozemel'nyimi modifikatorami; voprosy teorii i praktiki. Kiev, Naukova dumka, 1964. 161 p. (MIRA 17:11)

1. Akademiya nauk URSR, Kiev. Institut problem lit'ia.
2. Chlen-korrespondent AN Ukr.SSR (for Gorshkov).

GORSHKOV, Andrey Andreyevich, doktor tekhn. nauk; VOLOSHCHENKO, Mikhail Vasil'yevich, kand. tekhn. nauk; DUBROV, Vasilii Vladimirovich, kand. tekhn. nauk; KRAMARENKO, Oksana Yur'yevna, kand. tekhn. nauk; MIL'MAN, B.S., kand. tekhn. nauk, retsenzent; KLOCHNEV, N.I., kand. tekhn. nauk, retsenzent; TSYPIN, I.O., kand. tekhn. nauk, retsenzent; RIKBERG, D.B., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Handbook on iron founding of high-strength pig iron] Spravochnik po izgotovleniiu otlivok iz vysokoprochnogo chuguna. By A.A.Gorshkov i dr. Pod obshchei red. A.A.Gorshkova. Moskva, Mashgiz, 1961. 297 p. (MIRA 15:2)

1. Chlen-korrespondent Akademii nauk Ukrainskoy SSR (for Gorshkov).

(Iron founding)

VOLOSHCHENKO, M.V., kand.tekhn.nauk

Effect of nickel, copper, molybdenum and boron on the hardenability
of high strength cast iron with spheroidal graphite. *Metalloved.*
i term. obr. met. no.5:30-32 My '61. (MIRA 14:5)

1. Institut liteynogo proizvodstva AN USSR.
(Cast iron—Metallurgy)

VOLOSHCHENKO, N.

Extended repair of railroad cars without uncoupling. Zhel.dor.
transp. 36 no.6:33-36 Je '55. (MIRA 12:4)

1. Glavnyy inzhener vagonnoy sluzhby Donetskoy dorogi.
(Railroads--Cars--Maintenance and repair)

VOLOSHCHENKO, N. F.

PA 153T20

USSR/Engineering - Circuits, Bridge

Nov 49

"Graphical Design of Unbalanced DC Bridges," V. A. Bodner, N. F. Voloshchenko, Candidates Tech Sci, Air Force Eng Acad imeni Zhukov 2 pp

"Elektrichestvo" No 11

Determination of bridge circuit parameters by analytical methods presents considerable difficulty. Describes simple graphical method for unbalanced bridge circuits and indicates field of application. Method is especially valuable for complex bridge circuits with several variable parameters. Includes five diagrams. Submitted 12 Jan 49.

153T20

VOLOSHCHENKO, N.K.

Mechanization of heavy jobs in car repair shops. Zhel.dor.
transp. 41 no.11:69-72 N '59. (MIRA 13:2)

1. Glavnyy inzhener sluzhby vagonnogo khozyaystva Donetskogo
dorogi, g.Stalino.
(Railroads--Cars--Maintenance and repair)

VOLOSHCHENKO, N.K.

Advanced technology in car maintenance and repair. Zhe.dor.
transp. 44 no.1:68-74 Ja '62. (MIRA 14:12)

1. Glavnyy inzhener sluzhby vagonnogo khozyaystva Donetskoy
dorogi.

(Railroads Repair shops)

BABENKO, Vitaliy Il'ich; VOLOSHCHENKO, Nikolay Karpovich; FEL'DMAN, Moisey Froimovich; ALEKSEYEV, V.D., inzh., retsenzent; BRAYLOVSKIY, N.G., inzh., red.; VOROTNIKOVA, L.F., tekhn.red.

[Inspection and repair of freight cars in stations of mass loading and unloading] Osmotr i remont gruzovykh vagonov na stantsiyakh massovoi pogruzki i vygruzki; opyt Donetskoi dorogi. Moskva, Transzheldorizdat, 1962. 49 p.

(MIRA 16:1)

(Railroads--Freight cars--Maintenance and repair)

VOLOSHCHENKO, Nikolay Karpovich; LADYGIN, V.I., redaktor; KANDYKIN, A.Ye.
tekhnicheskii redaktor.

[Detecting faults in automatic car-couplings] Vyavlenie neisprav-
nostei mekhanizma avtostseпки v poezdakh. Moskva, Gos.trans.shel-
dor.izd-vo, 1955. 13 p. (MLRA 8:10)
(Car-couplings)

VOLOSHCHENKO, P.I., kand.filos.nauk

Atheistic views of the Decembrists. Nauka i zhyttia 8 no.3:
44-46 Mr '59. (MIRA 12:9)
(Decembrists) (Atheism)

14(5)

SOV/127-59-3-2/22

AUTHORS: Kalinichenko, V.F. Candidate of Technical Sciences, Binus, M.S. and Voloshchenko S.P., Engineers

TITLE: Experience in the Automation of Production Processes in Mines of the Krivoy Rog Basin. (Opyt avtomatizatsii proizvodstvennykh protsessov na shakhtakh Krivorozhskogo basseyna.)

PERIODICAL: Gornyy zhurnal, 1959, Nr 3, pp 5-11 (USSR)

ABSTRACT: The results of automation of industrial processes in mines of the Krivoy Rog Basin are reviewed in this article. Automation of already existing types of scraper winches (by fixing on them different automotive devices) did not give satisfactory results, and a new type is at present being developed by the Krivoy Rog Institute Giprorudmash and the enterprise Yuvmetal-lurgavtomatika. New single and double-drum remote control shunting winches for loading and shifting operations (introduced in 1957 in four sections of the

Card 1/5

SOV/127-59-3-2/22

Experience in the Automation of Production Processes in Mines of the Krivoy Rog Basin.

Novaya Mine) cut down the loading time and labor force. The 10 kw double-drum shunting winches are modified LA-10 scraper winches, constructed at the "Kommunist" Plant (3,000 kg-forces traction, remotely controlled with the help of a reversible magnetic starter). The 20 kw single-drum shunting winches are used for shifting freight cars under the bunkers. Their traction is 7,000 kg-forces. They are also remotely controlled. Automated curtain type fan doors, developed by NIGRI are now being introduced in mines of the Basin. For the automated exchange of trolleys in hoisting cages, different composite mechanisms developed by NIGRI, are being introduced. The automatic setting gear APU-NIGRI consists of an electromagnet linked by traction with a lever fixed on the camshaft. Two adjuster rings, connected by a wedge with the camshaft, transmit by the lever the pressure of the cage on the

Card 2/ 5

SOV/127-59-3-2/22

Experience in the Automation of Production Processes in Mines of the Krivoy Rog Basin.

camshaft. When the electromagnet is plugged in, the lever sticks out, the descending cage presses the lever and, by the adjuster rings turns the camshaft and places the cams under the cage. At the same time automatic trolley stoppers are automatically put into position. The author describes other devices for automatic trolley exchanges but stresses the necessity to find less complicated and more reliable mechanisms. The automation of water pumping operations is being realized according to plans developed by the Yuvmetallurgavtomatika. There were 23 automated installations in 1958. Manual work is still used in the partly automated skip hoisting operations, because of the shortage of reliable equipment. The cage hoisting installations in the Basin are still being worked manually, though the Yuvmetallurgavtomatika developed several plans for their automation. The central compressor installation of the Mine Administration imeni

Card 3/5

SOV/127-59-3-2/22

Experience in the Automation of Production Processes in Mines of the Krivoy Rog Basin.

XX Parts"yezd. was automated in 1955, and that of the Mine Administration imeni Ordzhonikidze - in 1958. The experience gathered in the exploitation of these installations will avoid initial mistakes while erecting the new automated compressor installation at the Mine Administration imeni Karl Libknecht. The author states that many problems connected with the automation of these installations were not solved by the constructors, and manual work is still needed in auxilliary operations. The automated loading of ore into railway bunkers is done by conveyers which carry ore from the crushing and sorting plant. The conveyor is put into motion by a motor, or by shunting winches. In 1956, NIGRI automated the loading of a series of bunkers at the crushing plant of the Gigant Mine. The level of ore in bunkers is controlled by two electrode indicators connected with the electromagnetic

Card 4/5

SOV/127-59-3-2/22

Experience in the Automation of Production Processes in Mines of the Krivoy Rog Basin.

installation of the control post. The scheme of automated control foresees an alternating loading of bunkers. To ensure further development of automation of mining operations in the Krivoy Rog Basin, it was decided to build a plant for the production of non-standardized automation equipment.

ASSOCIATION: Nauchno-issledovatel'skiy gornorudnyy institut, Krivoy Rog. (The Krivoy Rog Scientific-Research Ore-Mining Institute)

Card 5/5

VOLOSHCHENKO, S.P., inzh.; ROY, G.I., inzh.

Internal automatically actuated cage hoist stopping device.
Gor. zhur. no. 11:62-63 N '60. (MIRA 13:10)

1. Nauchno-issledovatel'skiy gorno-razvedochnyy institut
(for Voloshchenko). 2. Rudoupravleniye im. Ordzhonikidze,
Krivoy Rog (for Roy).

(Mine hoisting--Equipment and supplies)

KHODOROVICH, M.A.; LERNER, F.M.; LOTOTSKIY, K.V.; VOLOSHCHENKO, V.A.;
PETROV, I.V.; NIKITINA, V.M., red.; DEYEVA, V.M., tekhn. red.

[Operation and repair of agricultural electric systems] Eks-
pluatatsia i remont sel'skokhoziaistvennykh elektricheskikh
ustanovok. Izd.2. Moskva, Izd-vo sel'khoz.lit-ry, zhurnalov
i plakatov, 1961. 335 p. (MIRA 15:1)
(Electric power distribution) (Electricity in agriculture)

VOLOSHCHENKO, V. I.

1 Jun 53

USSR/Physics - Semiconductors, Cuprous Oxide

"Electrical Conductivity of Cuprous Oxide," A. I. Andriyevskiy, V. I. Voloshchenko, and M. T. Mishchenko, L'vov Polytech Inst

DAN SSSR, Vol 90, No 4, pp 521-523

Study the dependence, for various thicknesses (.25 to 1 mm) of copper plates and various temps (9500 to 1,0500 C) of the number n (0 to 1,000) grains of Cu₂O in the field of vision of a microscope and specific conductivity on the soaking time (0 to 18

2547105

hrs) of a sample in a furnace, the graph of which reveals that the greater the oxidation time the coarser the single crystals and the less the conductivity. Conclude that, in an analysis of the elec properties of Cu₂O semiconductors, one cannot disregard the influences on them of the individual elements describing the polycryst structure of a cuprous-oxide layer. Presented by Acad A. F. Ioffe
26 Mar 53.

2547105

VOLOSHCHENKO, V. I. --"Electric Conductivity of Polycrystalline Specimens of Copper Oxide." *(Dissertations for Degrees in Science and Engineering Defended at USSR Higher Educational Institutions) Min of Higher Education USSR, L'vov Polytechnic Inst, L'vov, 1955

SO: Knizhnaya Letopis', No. 25, 18 Jun 55

* For Degree of Candidate in Technical Sciences

ANDRIYEVSKIY, A.I.; VOLOSHCHENKO, V.I.; MISHCHENKO, M.T.

Electric conductivity of cuprous oxide. Zhur. tekhn. fiz. 25
no.14:2422-2427 D '55. (MIRA 9:2)
(Copper oxides--Electric properties)

VOLOSHCHENKO, V. O.

N/5
735.92
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Ekspluatatsiya i remont sil's'kykh elektroustanovok (Operation And Maintenance Of Rural Power Plants) by V. O. Voloshchenko (1 Dr.) Kyiv, DTVU, 1952.

251 p. diags., tables.

Bibliographical footnotes.

RIVKIN, I.D., kand.tekhn.nauk; VOLOSHCHENKO, V.P., kand.tekhn.nauk; MAYMIN, L.R.,
gornyy inzh.

Parameters of mining systems with caving of deep level superposed
rocks. Gor.zhur. no.8:15-21 Ag '65.

(MIRA 18:10)

1. Nauchno-issledovatel'skiy gornorudnyy institut, Krivoy Rog.

VOLOSHCHENKO, Ye., starshiy leytenant

Device for cleaning storage batteries. Voenn. vest. 41 no.2:
108-109 F '62. (MIRA 15:3)

(Storage batteries)

VOLOSHCHENKO, Ye.A.; DVORYANCHIK, V.I.; IL'CHENKO, Ye.I.; TOPOL'SKAYA, T.A.;
CHISTYAKOVA, A.M.

Organization of sanitary supervision by a province sanitary-
epidemiological station to control the use of poisonous chemicals
for the treatment of food crops and animals on farms. Vop.pit. 24
no.3:83-84 My-Je '65. (MIRA 18:12)

1. Kafedra gigiyeny pitaniya Donetskogo meditsinskogo instituta,
Donetskaya i Lyganskaya oblastnyye sanitarno-epidemiologicheskiye
stantsii. Submitted June 16, 1964.

VOLOSHCHENKO, Yuriy Ivanovich; ANBINDER, Aleksandr Danilovich;
LUZIN, P.G., inzh., retsenzent; KOVALENKO, A.V., inzh.,
red.; DUGINA, N.A., tekhn. red.

[Manufacture of bimetallic bushings] Izgotovlenie bimetal-
licheskikh vtulok. Pod red. A.V.Kovalenko. Moskva, Mashgiz,
1961. 35 p. (MIRA 15:4)
(Laminated metals) (Bearing industry)

L 36196-66 EWT(1)

ACC NR: AP6011451

SOURCE CODE: UR/0109/66/011/004/0699/0708

AUTHOR: Voloshchenko, Yu. P.; Malyshev, V. A.

ORG: none

TITLE: Nonlinear theory of negative-conductance TW amplifiers 25

SOURCE: Radiotekhnika i elektronika, v. 11, no. 4, 1966, 699-708

TOPIC TAGS: TW amplifier, electronic amplifier, distributed amplifier, amplifier design

ABSTRACT: An attempt is made to construct a nonlinear theory of distributed amplifiers operating under stationary conditions. Assumptions: (a) the TW amplifier is designed with nonlinear susceptances and negative nonlinear conductances, (b) no reflections in the amplifying system, (c) small gain per unit length, i.e., the amplitude propagation constant is considerably smaller than the

Card 1/2

UDC: 621.385.632.011.222

L 36196-66

ACC NR: AP6011451

phase constant. The method of successive approximations is used. The theory is extended over the case of tunnel-diode TW amplifiers, in the zeroth and first approximations. Tunnel gaps with oscillatory characteristics are considered which are associated with soft and hard excitation conditions. The results obtained for the tunnel-diode amplifier are also applicable to an extended (along the transmission line) reflex klystron that operates at a repeller voltage corresponding to the oscillation-zone center. Two Supplements give details of operation with two integrals used in the article. Orig. art. has: 2 figures and 76 formulas.

SUB CODE: 09 / SUBM DATE: 04Jan65 / ORIG REF: 002 / OTH REF: 003

Card 2/2 *MLP*

GLADKIY, Vladimir Ivanovich; LOBANOV, Mikhail Ivanovich;
SLAVCHENKO, Nikolay Antonovich; BERGER, K., red.;
VOLOSHCHENKO, Z., red.; GOLOVKO, L., red.

[Power equipment, electrical equipment, and plumbing
installations in construction; a manual] Energeticheskoe
elektrotekhnicheskoe i sanitarno-tekhnicheskoe oborudo-
vanie v stroitel'stve; spravochnik. Kiev, Gos.izd-vo po
stroit. i arkhitekt. USSR, 1964. 870 p. (MIRA 17:5)

VOLOSHCHENKO, Z., red.; ZELENKOVA, Ye.[Zelenkova, IE.], tekhn. red.

[Builder's Day] Den' budivel'nyka. Kyiv, Derzh. vyd-vo lit-
ry z budivnytstva i arkhitektury URSR, 1960. 62 p.
(MIRA 15:3)

1. Ukraine. Gosudarstvennyy komitet po delam stroitel'stva.
(Construction industry)

SHCHEKIN, Rostislav Vladimirovich, kand. tekhn. nauk, dots.; KORENEVSKIY, Sergey Mikhaylovich, kand. tekhn. nauk, dots.; BEM, Georgiy Yevgen'yevich, dots.; ARTYUSHENKO, Mikhail Alipiyevich, inzh.; SKOROKHOD'KO, Fedor Isidorovich, dots.; LOBAYEV, B.N., doktor tekhn. nauk, prof., red.; POLTORATSKAYA, E.A., red.; SURYGINA, E.N., red.; VOLOSHCHENKO, Z.N., red.; LEUSHCHENKO, N.L., tekhn.red.

[Handbook on heating and ventilation in residential and public buildings] Spravochnik po teplosnabzheniu i ventiliatsii v grazhdanskom stroitel'stve. [By] R.V.Shchekin i dr. 2. izd., perer. i dop. Kiev, Gos.izd-vo lit-ry po stroit. i arkhitekt. USSR, 1962. 1019 p. (MIRA 16:2)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury Ukr. SSR (for Lobayev).

(Heating) (Ventilation)

BAZ', Boris Dmitriyevich; VOLOSHCHENKO, Z.N., red.; KALISHEVSKAYA,
I.K., red.

[Normative pressure on a natural foundation; calculation
tables] Normativnoe davlenie na estestvennoe osnovanie;
tablitsy dlia rascheta. Kiev, Budivel'nyk, 1965. 188 p.
(MIRA 18:7)

VOLOSHCHENKO, Z.N., red.

[Improving the designs of structural elements] Sovershenstvovanie raschetov stroitel'nykh konstruktsii; nauchnoe soobshchenie. Kiev, Gosstroizdat USSR, 1964. 45 p.
(MIRA 17:7)

1. Khar'kovskiy promstroynii proyekt.

PISHCHIK, Grigoriy Filippovich; VOLOSHCHENKO, Z.N., red.; LEUSHCHENKO,
N.L., tekhn. red.

[Optical method of studying pressure on reinforced members]
Opticheskii metod issledovaniia napriazhennogo sostoiianiia
armirovannykh elementov. Kiev, Gos. izd-vo lit-ry po stroit.,
arkhit. USSR, 1961. 44 p. (MIRA 15:2)
(Reinforced concrete construction--Testing)

MOROZ, Ivan Ivanovich, kand. tekhn. nauk; VOLOSHCHENKO, Z.N., red.;
ZELENKOVA, Ye.Ye., tekhn. red.

[Automation of the production of structural ceramics] Avto-
matizatsiia proizvodstva stroitel'noi keramiki. Kiev, Gos.
izd-vo lit-ry po stroit. i arkhitekt. USSR, 1961. 207 p.
(MIRA 15:1)

(Ceramic materials) (Building materials)

VOLCHENKO, Feodosiy Romanovich; MEKLER, Mark Borisovich; VOLOSHCHENKO,
Z.N., red.; ZELENIKOVA, Ye.Ye., tekhn. red.

[Inventors and efficiency experts of Dnepropetrovsk Province]
Izobretateli i ratsionalizatory stroek Dnepropetrovshchiny.
Kiev, Gos. izd-vo lit-ry po stroit. i arkhitekt. USSR, 1961. 40 p.
(MIRA 15:3)

(Dnepropetrovsk Province—Technological innovations)
(Inventions)

MOROZ, Ivan Ivanovich, kand. tekhn. nauk; VOLOSHCHENKO, Z.N., red.;
ZELENKOVA, Ye.Ye., tekhn. red.

[Technology of structural ceramics] Tekhnologiya stroitel'-
noi keramiki. Kiev, Gos. izd-vo lit-ry po stroit. i arkhitekt.
USSR, 1961. 463 p. (MIRA 15:3)
(Ceramics)

BIRYUKOVICH, Konstantin L'vovich; BIRYUKOVICH, Yuriy L'vovich;
BIRYUKOVICH, Dmitriy L'vovich; VOLOSHCHENKO, Z.N., red.

[Glass cement] Steklotsement. Kiev, Budivel'nyk, 1964.
113 p. (MIRA 17:12)

LELICHENKO, Vasilii Gordeyevich, kand. tekhn.nauk; SAVCHENKO-
BEL'SKIY, Vitaliy Grigor'yevich; VOLOSHCHENKO, Z.N.,
red.; GRISHKO, T.I., tekhn. red.

[Joints and joinings in panel-built apartment houses]
Styki i sopriazheniia panel'nykh zhilykh domov. Kiev,
Gosstroizdat USSR, 1963. 45 p. (MIRA 16:8)
(Building--Details)

DUTKO, Ivan Andreyevich; VOLOSHCHENKO, Z.N., red.; YEREMINA, I.A.,
tekhn. red.

[Constructive work] Stroitel'nye raboty. Kiev, Gosstroi-
izdat URSR, 1963. 310 p. (MIRA 16:10)
(Building)

FOLIKARPOV, Timofey Abramovich; VOLOSHCHENKO, Z.N., red.

[Album of designs for the laying of ceramic floor tiles]
Al'bom uzorov dlia vykladki polov iz плиток. Kiev, Gos-
stroisdat USSR, 1964. 6 p. (MIRA 17:6)

RAL'CHUK, Nikolay Trofimovich; VOLOSHCHENKO, Z.N., red.

[Panel heating of buildings] Panel'noe otoplenie zdani.
Kiev, Budivel'nyk, 1964. 164 p. (MIRA 17:11)

GELLER, Boris Petrovich; KUZIN, Mikhail Yakovlevich; LOSHCHEKOV,
Vadim Yakovlevich; LEVITSKIY, Bentsion Aronovich;
ALEKSEYEV, V.K., spets. red.; VOLOSHCHENKO, Z N., red.

[Financing and calculations in construction; consultations
and explanations] Finansirovanie i raschety v stroitel'stve;
konsul'tatsii i raz'iasneniia. Kiev, Budivel'nyk, 1964. 199 p.
(MIRA 17:10)

1. Ukraine. Gosudarstvennyy komitet po delam stroitel'stva.

BOROVSKIY, Nikolay Vladimirovich, kand. tekhn. nauk; FOKHASS,
Leonid Iosifovich, inzh.; VOLOSHCHENKO, Z.N., red.

[Mesh-reinforced concrete elements] Armatsementnye
konstruktsii. Kiev, Budivel'nyk, 1965. 130 p.
(MIRA 18:11)

BERDINSKIKH, Ivan Pavlovich; VOLOSHCHENKO, Z.N., red.

[Wood gluing] Skleivanie drevesiny. Izd.2., perer. i dop.
Kiev, Budivel'nik, 1965. 322 p. (MIRA 18:12)

VOLOSHCHIK, A. N.

Some Iteration Formulae and the Improvements to be Brought into the Roots of Algebraic Transcendent Equations p. 71

TRANSACTIONS OF THE 2ND REPUBLICAN CONFERENCE ON MATHEMATICS AND MECHANICS
(TRUDY VTORGY RESPUBLIKANESKOY KONFERENTSIY PO MATEMATIKE I MEKHANIKE), 184
pages, published by the Publishing House of the AS KAZAKH SSR, ALMA-ATA, USSR, 1962

VOLOSHCHUK, A.

Right-flank men. Avt.transp. 41 no.4:8-9 Ap '63. (MIRA 16:5)

1. Direktor Simferopol'skogo avtobusnogo parka.
(Simferopol'--Motorbus lines)

VOLOSHCHUK, A. I.

(3)

IVANOV, V. Ye., ZELENSKIY, V. F., VOLOSHCHUK, A. I., GRINYUK, V. N.,

"Uranium-based Cermet Alloys"

Report submitted for the Conference on New Nuclear Materials Technology
including Non-Metallic Fuel Elements (IAEA), Prague, 1-5 July 1963

VOLOSHCHUK, B.M.

Prevention of exogenous infections in surgery. Khirurgiia 40
no.2:36-40 F '64. (MIRA 17:7)

1. Kafedra propedeuticheskoy khirurgii (zav. - prof. A.S. Serednitskiy) pediatricheskogo i stomatologicheskogo fakul'tetov L'vovskogo meditsinskogo instituta na baze 2-y Gorodskoy bol'nitsy (glavnyy vrach N.F. Kraynyaya.)

VOLOSHCHUK, I.A.; ANDREYEV, M.I.

Canned pea puree with smoked lardon. Kons. i ov. prom. 16 no.9:21-23
S '61. (MIRA 14:8)

1. Kropotkinskiy konservnyy zavod.
(Peas, Canned)

YURKOV, G.G., kand.veter.nauk; ANDRIYAN, Ye.A., kand.veter.nauk; VOLOSHCHUK,
I.G., nauchnyy sotrudnik

Studying experimental leptospirosis in swine. Veterinariia
42 no.9:33-35 S '65. (MIRA 18:11)

1. Luganskaya oblastnaya sel'skokhozyaystvennaya opytnaya
stantsiya.

NATAPOV, B.S.; OL'SHANEYSKIY, V.Ye.; Prinsipali uchastiye: VOLOSHCHUK, M.D.;
NOSIK, N.Ye.; BUR'YAN, V.D.

Coalescence of the carbide phase in normal and anomalous
carbon steels. Fiz. met. i metalloved. 13 no.6:934-937 Je
'62. (MIRA 15:7)

1. Zaporozhskiy mashinostroitel'nyy institut imeni V.Ya. Chubarya.
(Steel--Metallography) (Cementation (Metallurgy))

NATAPOV, B.S.; BARZII, V.K.; OL'SHANETSKIY, V.Ye.; Prinimali uchastiye:
FILONOV, V.A., inzh.; YUDIN, M.I., inzh.; IOFFE, M.M., inzh.;
POPOV, S.M., inzh.; RYBALKO, G.I., inzh.; ODINETS, L.I., inzh.;
SIGALKO, F.V., inzh.; TSIVIRKO, D.Ye.; VOLOSHCHUK, M.D., inzh.

Heat treatment of cold-rolled sheet metal. Stal' 22 no.2:163-
165 F '62. (MIRA 15:2)

1. Zaporozhskiy mashinostroitel'nyy institut i zavod
"Zaporozhstal'". 2. Zavod "Zaporozhstal" (for Filonov,
Yudin, Ioffe, Popov, Rybalko, Odinets). 3. Zaporozhskiy
mashinostroitel'nyy institut (for Sigalko, TSivirko, Voloshchuk).
(Sheet steel—Heat treatment)

VOLOSHCHUK, M.D.

Geomorphological characteristics of the floodplains of small rivers
in the southwestern part of the Moldavian S.S.R. as related to their
reclamation. Okhr. prir. Mold. no.3:34-39 '65.

(MIRA 18:10)

NATAPOV, B.S.; VOLOSHCHUK, M.D.; LEVCHENKO, T.V.; TSIVIRKO, D.Ye.

Dependence between the mechanical properties and the microstructure
of 08KP steel. Trudy Zapor. mashinostroitel'n. inst. 4:45-58 '59.
(MIRA 17:1)

L 10600-63

EWB(q)/EWT(m)/BDS AFFTC/ASD JD

ACCESSION NR: AP001053

S/0148/63/000/004/0115/0123

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55

AUTHOR: Natapov, B. S.; Ol'shanetskiy, V. E.; Vasilenko, G. I.; Voloshchuk, M. D.

TITLE: The mechanism of normal and abnormal steel structure formation

SOURCE: IVUZ. Chernaya metallurgiya, no. 4, 1963, 115-123

TOPIC TAGS: abnormal steel structures, structural transformation, hypereutectoid steel, austenite, ferrite crystallization

ABSTRACT: The study was made in order to explain the formation of an abnormal structure in steels, and to what extent the surface energy influences the rate of independent or cooperative growth of different structural components. Samples of normal and abnormal steel of type 08kp with chemical composition C Si Mn P S Al, and cast at the Zaporozhstal Works, were carbonized for 10 hours in bondirizing carbonizer at a temperature of 930C. In order to observe the structural transformation in steel, the samples were heated to 900C, then submerged at certain temperatures in a salt solution (50% KCl plus 50% NaCl) and then quenched in water. After heating the hypereutectoid steel to a point above A sub cm and at subsequent isothermal delay at a little above the point A sub l, the formation of a cementite lattice began to take place. With an extended duration, this lattice of cementite crystals remains in the normal steel. In the abnormal steel an intensive

Card 1/2

L 10600-63

ACCESSION NR: AP3001053

coalescence of cementite takes place. In order to explain the differences between normal and abnormal steels, the isothermic transformation of austenite at different temperatures was studied by annealing and subsequent study of the microstructure of the samples. The abnormal structure in the steel is formed as a result of the preeminent separate growth of phases, assuming, that in this process the decisive factor is the ferrite crystallization rate. The formation of an abnormal structure is observed in both the normal and the abnormal steel when the austenite is supercooled to a point just below A sub 1. The tendency to form an abnormal structure in steel is greater, when the surface tension at the boundaries of ferrite-austenite and cementite-austenite is lower. Orig. art. has: 5 figures and 1 table.

ASSOCIATION: Zaporozhskiy Mashinostroitelnyy institut (Zaporozh Machine-Building Institute)

SUBMITTED: 25Apr62

DATE ACQD: 11Jun63

ENCL: 00

SUB CODE: 00

NO REF SOV: 014

OTHER: 005

Card 2/2

NATAPOV, B.S.; OL'SHANETSKIY, V.Ye.; VASILENKO, G.I.; VOLOSHCHUK, M.D.

Effect of various factors on the tendency of steel towards anomalies. Izv. vys. ucheb. zav.; chern. met. 6 no.8:141-150 '63. (MIRA 16:11)

1. Zaporozhskiy mashinostroitel'nyy institut.

SSVAREN, V.P. [Savryk, V.P.], kand. tekhn. nauk; STEDLYA, I.Z. [Stablyna, I.Z.]; VSISCHENK, F.S.

Effect of vibrations on the process of leather stretching.
Izh. pron. no. 1:64-66 C-D '64 (MIRA 18:1)

VOLOSHCHUK, O. A., Cand Med Sci -- (diss) "Excretory function
of the stomach in patients with ~~Botkin's~~ Botkin's disease." Chernovtsy,
1958. 15 pp (^{Chernovtsy} Chernovtsy Med Inst). 200 copies.
(KL, 12-58, 101)